

# Cancer Registries





## Surveying Farmworkers to Identify Variations of Cancer Incidence Among Hispanic Populations

### Public Health Problem

Farmworkers are exposed to a variety of potentially toxic substances that are used in agriculture, and many of these farmworkers live near their workplaces or consume the products they help produce. Most studies of farmers have focused on those in the Midwest who work on highly mechanized farms; however, large numbers of Hispanic farmworkers are employed in labor-intensive operations and may experience more direct exposure to agricultural chemicals. Additional information is needed to understand the possible health consequences of such exposures among Hispanic farmworkers—including their potential risks for cancer.

### Evidence That Prevention Works

Information derived from statewide, population-based cancer registries enables public health professionals to understand and address cancer in a more effective way. Specifically, this information helps them identify cancer patterns among various populations and determine whether prevention measures and screening make a difference.

### Program Example

From 1987 to 1999, the California Cancer Registry (CCR) conducted a study to evaluate the incidence of cancer among members of the United Farmworkers of America (UFW), a largely Hispanic farmworkers' labor union in California. In this electronic data linkage project, information from the CCR was linked with a membership roster of the UFW to determine whether risks for specific cancers were higher or lower among UFW members than among the overall California Hispanic population. The results of the study showed that the risk for leukemia, stomach, cervical, and uterine cancers was higher among UFW members. Members of the UFW also were at a later stage of disease at diagnosis than were other California Hispanics for most major cancers except for breast cancer.

### Implications

The use of high-quality cancer registry data has been pivotal in identifying variations in cancer incidence among specific populations. As a follow-up to the UFW study, additional research is planned to examine which pesticides were used and how long farmworkers were exposed to each of them. This study will help determine whether specific occupational exposures are associated with cancer. Similar occupational studies have identified chemical carcinogens and have provided direction for prevention activities to reduce or eliminate cancer-causing exposures in the workplace and elsewhere.

### Contact Information

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## Conducting a Surveillance Program to Understand the Burden of Cancer on the Medicaid Population

### Public Health Problem

In 2002, cancer killed an estimated 19,800 people in Michigan, and another 45,800 new cases of cancer were diagnosed in the state. Many racial and ethnic minority groups, people with low incomes, and those living in rural areas not only suffer disproportionately from cancer, but also must cope with limited access to prevention and treatment services.

### Evidence That Prevention Works

Because the burden of cancer is not the same for all communities, the use of high-quality cancer registry data is critical in identifying variations in cancer incidence among specific populations.

### Program Example

In a Michigan data-linkage project, information from three statewide databases—the Cancer Registry, Medicaid enrollment files, and death certificate files—was examined to identify disparities in cancer deaths among minority and low-income populations. This study was designed to examine the differences in stage-of-disease at the time of diagnosis and the subsequent survival rates of patients considered medically underserved compared with the remaining population of cancer patients in Michigan. The analysis focused on female breast, cervical, lung, prostate, and colon cancers. The study, published by the American Cancer Society, showed that low-income populations have a greater incidence of cancer. It also demonstrated that a greater proportion of low-income people with cancer are African American and that they are more likely to be diagnosed at younger ages (less than 65 years) for both colon and breast cancers but less likely to be diagnosed at older ages (older than 65 years) for cervical cancer. For the five disease sites, low-income people younger than 65 years were more likely to be diagnosed with late-stage disease and were more likely to die of the disease. The Medicaid population younger than 65 years was at greater risk of being diagnosed with late-stage disease than was the non-Medicaid population. For breast and lung cancers, older Medicaid patients also were at greater risk of dying of these diseases compared with non-Medicaid patients.

### Implications

This data linkage project, funded in part by a comprehensive cancer control grant, is the first of a series of reviews of the burden of cancer on the Medicaid population. Findings from this study highlight the need for effective cancer screening efforts among low-income populations. Michigan has established a Medicare-Medicaid Policy Advisory Committee to review the health issues that were raised as result of this study, and county-specific information is being used to identify areas where screening efforts should be increased, especially for breast and colon cancers.



## Developing a Comprehensive, Web-Based Information Resource to Monitor Cancer Incidence

### Public Health Problem

In 2002, cancer killed an estimated 12,300 people in Missouri, and another 28,600 new cases of cancer were diagnosed in the state. The burden of cancer is not the same for all communities, which means that programs must be tailored to address problems where they exist, using appropriate strategies to target specific communities.

### Evidence That Prevention Works

Complete, timely, and high-quality data are essential for conducting research and responding to public concerns about cancer incidence in their communities. This information helps identify cancer patterns among various populations and determines whether prevention measures and screening make a difference.

### Program Example

The Missouri Cancer Registry, in collaboration with the state's Center for Health Information Management and Evaluation, developed a unique cancer information resource for citizens, health professionals, researchers, and policy makers: Missouri Information for Community Assessment (MICA). MICA is an innovative Web-based system that allows users to access health information, including cancer statistics from the state cancer registry and health risk factor information from the Behavioral Risk Factor Surveillance System. The cancer MICA system allows users to create tables showing cancer incidence by year, age, sex, race, cancer site, cancer stage, cancer grade, and the geographic location of cancer patients at the county level. This user-specific information can then be downloaded to other applications to produce maps, charts, or graphs so people can understand the overall effect that cancer has on the state.

### Implications

The availability of high-quality cancer registry data and information about health behaviors and risk factors is essential to identifying and monitoring trends in cancer incidence and deaths. This type of information also is critical to researching, planning, and evaluating cancer prevention and control efforts. Missouri's MICA is a new way of providing partners and the public with information about cancer and its associated risk factors. The MICA Web-based system can serve as a model for other states as an effective way to provide and encourage the use of data collected through the state's central cancer registry and to integrate cancer-related data into health planning activities.

### Contact Information

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## Using Cancer Registry Data to Identify and Better Serve Diverse Populations

### Public Health Problem

In New Jersey in 2002, an estimated 6,900 women were diagnosed with breast cancer, and an estimated 1,400 women died of breast cancer.

### Evidence That Prevention Works

When breast cancer is diagnosed at a local stage, 97% of women still are alive 5 years later. The 5-year survival rate decreases to 21% when the disease is diagnosed after it has spread to other sites. Routine mammography screening is an especially effective means of detecting breast cancer at the earliest stages.


### Program Example

The New Jersey State Cancer Registry (NJSCR) devised a study to identify, map, and characterize areas of New Jersey with significantly high proportions of advanced-stage breast cancer using a Geographic Information Systems (GIS) analysis and SaTScan (a statistical tool). Two areas in northeastern New Jersey were identified by this method as having unusually high proportions of late-stage breast cancer. Census data provided demographic information that allowed the populations in these two areas to be compared with the rest of the state. Analysis showed that the populations in these two areas were more likely to be black, Hispanic, and foreign-born and to speak a language other than English in the home. Over 90% of the women diagnosed with breast cancer, however, lived within 2 miles of a mammography screening center. Study results were shared with the New Jersey Cancer Education and Early Detection Program, which offers cancer screening services to underserved populations. Additional screening resources that were funded by CDC and the state have been directed to these areas. Particular initiatives include providing culturally sensitive screening information in a variety of languages such as Spanish, Polish, and Arabic.

### Implications

New Jersey has a large and diverse population, and targeting public health resources in that state is a complex task; however, by using registry data and GIS analysis, specific intervention areas were identified. This project is an excellent example of science-driven public health decision making that addresses the problems of cancer prevention and control. The NJSCR plans to use this type of analysis to help guide decision making for disease control for other cancers such as cervical, colorectal, skin, and prostate.

# North Carolina



## Demonstrating Effective Partnership and Collaboration Between Research Institutions and Cancer Registries

### Public Health Problem

Breast cancer is the second most commonly diagnosed cancer and the second leading cause of cancer-related deaths among women in the United States. In 2002, an estimated 1,200 women in the United States died of breast cancer, and approximately 5,900 new cases were diagnosed.

### Evidence That Prevention Works

Since the late 1970s, major advances have occurred in detecting and treating breast cancer; however, there is much that the health community does not know about the different types of breast cancer, the complexities surrounding risk factors, and causes of this disease. To control this disease, lessen its impact on thousands of American women each year, and address differences among racial and ethnic groups in breast cancer incidence and deaths, more research is needed. Information derived from statewide, population-based cancer registries enhances such research efforts.

### Program Example

Data from the North Carolina Central Cancer Registry were used in two special research projects at the University of North Carolina Lineberger Comprehensive Cancer Center. The Carolina Breast Cancer Study (CBCS) and the Carcinoma Study are multiyear, population-based, case-control studies designed to discover new risk factors for breast cancer. As part of the Specialized Program of Research Excellence (SPORE), the National Cancer Institute funds both studies. The CBCS examined invasive breast cancer and enrolled approximately equal numbers of African American and white women; half the women were under age 50, and the other half were aged 50 years or older, which meant that the CBCS had sufficient numbers to examine differences in breast cancer incidence and risk by race and age. Participants in the Carcinoma Study had preinvasive breast cancer, and about 20% were African American. Using data from in-depth interviews and biologic samples, these studies examined environmental, behavioral, and genetic risk factors that influence breast cancer development.

### Implications

Increasing the knowledge base for breast cancer through research studies such as the ones conducted at the University of North Carolina Lineberger Comprehensive Cancer Center is essential in reducing the number of deaths from breast cancer in the United States. High-quality cancer data from state central cancer registries are critical to advancing epidemiologic, clinical, and health services research to reduce the burden of breast cancer among U.S. women. Ongoing data-sharing efforts between cancer registries and research institutions will ensure that progress in this important health arena continues.

### Contact Information

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